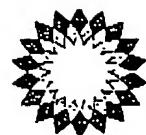


bp



CUSTOMER NO. 04249

BP America Inc.
 BP Legal
 Mail Code 5 East
 4101 Winfield Road
 Warrenville, IL 60555
 Tel No.: 630/821-2464
 Fax No.: 630/821-3383

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Pages (including this page) 19

FROM: Carol M. Neth
 Paralegal, IP GroupRE: Customer No. 04249
 Application No.: 10/645,429
 Filed: August 21, 2003
 Examiner: Ebenczer O. Sackey
 Group Art Unit: 1626
 Attorney Docket: 37241-01

Attached are the following documents:

One Month Extension of Time
 Response to Office Action dated December 2, 2004
 Credit Card Form PTO-2038

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APPLICANT(S): ROBERT P. HEPFER, CRAIG) PATENT APPLICATION
T. MILLER, GREGORY A.) Confirmation No. 8069
NORENBERG, THOMAS G.)
ATTIG, JOHN R. BUDGE)
)
APPLICATION NO.: 10/645,429) Group Art Unit: 1626
)
FILED: August 21, 2003) Examiner:
) Ebenezer O. Sackey
)
FOR: TWO-STAGE PROCESS FOR THE)
HYDROGENATION OF MALEIC ACID) Attorney Docket No.:
TO 1,4-BUTANEDIOL) 37,241-01

MAR 29 2005

RESPONSE

Attention: Group Art Unit 1626
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is in response to the office action mailed December 2, 2004, for which a one-month extension of time to respond is respectfully requested.

REMARKS

The present invention relates to a process for the hydrogenation of maleic acid to 1,4-butanediol (BDO), gamma-butyrolactone (GBL) and/or tetrahydrofuran (THF). This reaction proceeds in two steps. The maleic anhydride is first hydrogenated to succinic acid. The succinic acid is then hydrogenated to BDO, GBL and/or THF. These reactions will proceed over a wide range of temperatures and prior art reaction temperatures above 150°C were typical.

In the practice of this process, the internals of the reaction vessels, piping and equipment are in contact with maleic acid. Corrosion of process equipment is an issue. Corrosive conditions shorten the expected life of process equipment (e.g. hydrogenation